Amendments to the Claims:

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

1. (currently amended) A process for preparing ~~a wound or graft dressing, the wound or graft dressing comprising~~ a thermosensitive nanoporous random polymer, the process comprising polymerizing a microemulsion comprising a first monomer that is capable of forming a thermosensitive polymer and a polymerizable surfactant, wherein the resulting polymer exhibits a discontinuous swelling ratio around a lower critical solution temperature.

2. (canceled)

3. (currently amended) The process of ~~claim 1~~claim 13 wherein the first monomer is an alkylated acrylamide.

4. (original) The process of claim 3 wherein the first monomer is *N*-isopropylacrylamide.

5. (previously presented) The process of claim 4 wherein the polymerizable surfactant is ω-methoxy poly(ethylene oxide)$_{40}$ undecyl α-methacrylate or poly(ethylene oxide)$_{78}$-poly(propylene oxide)$_{30}$-poly(ethylene oxide)$_{78}$-diacrylate.

6. (original) The process of claim 5 wherein the microemulsion comprises a comonomer.

7. (original) The process of claim 6 wherein the microemulsion comprises methyl methacrylate or 2-hydroxyethyl methacrylate.

8. (original) The process of claim 7, wherein the polymerizable surfactant is ω-methoxy poly(ethylene oxide)$_{40}$ undecyl α-methacrylate and the microemulsion further comprises a

chemical cross-linker.

9. (previously presented) The process of claim 8, wherein the cross-linker is ethylene glycol dimethacrylate.

10. (original) The process of claim 9, wherein the microemulsion further comprises a photo-initiator.

11. (original) The process of claim 10, wherein the photo-initiator is 2,2-dimethoxy-2-phenylacetophenone.

12. (original) The process of claim 11, wherein the polymerizing comprises subjecting the microemulsion to ultraviolet radiation.

13. (currently amended) The process of ~~claim 12~~ claim 1 comprising ~~the step of~~ preparing a layer of microemulsion of a desired thickness of a wound or graft dressing prior to polymerization, the resulting polymer thus forming the wound or graft dressing.

14. (currently amended) The process of ~~claim 13~~ claim 12, wherein the microemulsion comprises about 20 % (w/w) *N*-isopropylacrylamide, about 10% (w/w) methyl methacrylate, about 10 % (w/w) 2-hydroxyethyl methacrylate, about 35 % (w/w) ω-methoxy poly(ethylene oxide)$_{40}$ undecyl α-methacrylate, about 23% (w/w) water and about 2% ethylene glycol dimethacrylate.

15. (currently amended) The process of ~~claim 13~~ claim 12, wherein the microemulsion comprises about 10 % (w/w) *N*-isopropylacrylamide, about 10% (w/w) methyl methacrylate, about 20 % (w/w) 2-hydroxyethyl methacrylate, about 35 % (w/w) ω-methoxy poly(ethylene oxide)$_{40}$ undecyl α-methacrylate, about 23% (w/w) water and about 2% ethylene glycol dimethacrylate.

16. (currently amended) The process of ~~claim 13~~ claim 12, wherein the microemulsion comprises about 7.5 % (w/w) *N*-isopropylacrylamide, about 7.5 % (w/w) methyl methacrylate,

about 15 % (w/w) 2-hydroxyethyl methacrylate, about 35 % (w/w) ω-methoxy poly(ethylene oxide)$_{40}$ undecyl α-methacrylate, about 33% (w/w) water and about 2% ethylene glycol dimethacrylate.

17. (currently amended) The process of ~~claim 13~~ claim 12, wherein the microemulsion comprises about 10 % (w/w) *N*-isopropylacrylamide, about 20 % (w/w) methyl methacrylate, about 10 % (w/w) 2-hydroxyethyl methacrylate, about 35 % (w/w) ω-methoxy poly(ethylene oxide)$_{40}$ undecyl α-methacrylate, about 23% (w/w) water and about 2% ethylene glycol dimethacrylate.

18. (currently amended) The process of ~~claim 13~~ claim 12, wherein the microemulsion comprises about 25 % (w/w) *N*-isopropylacrylamide, about 10 % (w/w) methyl methacrylate, about 5 % (w/w) 2-hydroxyethyl methacrylate, about 35 % (w/w) ω-methoxy poly(ethylene oxide)$_{40}$ undecyl α-methacrylate, about 23% (w/w) water and about 2% ethylene glycol dimethacrylate.

19. (currently amended) The process of ~~claim 13~~ claim 12, wherein the microemulsion comprises about 30 % (w/w) *N*-isopropylacrylamide, about 10 % (w/w) 2-hydroxyethyl methacrylate, about 35 % (w/w) ω-methoxy poly(ethylene oxide)$_{40}$ undecyl α-methacrylate, about 23% (w/w)
water and about 2% ethylene glycol dimethacrylate.

20. (currently amended) The process of ~~claim 13~~ claim 12, wherein the microemulsion comprises about 10 % (w/w) *N*-isopropylacrylamide, about 25 % (w/w) methyl methacrylate, about 5 % (w/w) 2-hydroxyethyl methacrylate, about 35 % (w/w) ω-methoxy poly(ethylene oxide)$_{40}$ undecyl α-methacrylate, about 23% (w/w) water and about 2% ethylene glycol dimethacrylate.

21. (withdrawn) A method of dressing and undressing a wound comprising:

applying a thermosensitive nanoporous polymer to a wound;

immediately prior to removing the polymer from the wound, reducing the temperature of thermosensitive nanoporous polymer to facilitate removal of the polymer; and

removing the thermosensitive nanoporous polymer from the wound.

22. (withdrawn) A method of delivering a therapeutic agent to a wound comprising:

incorporating a therapeutic agent into a thermosensitive nanoporous polymer; and

applying the thermosensitive nanoporous polymer to the wound.

23. (withdrawn) The method of claim 22, wherein the therapeutic agent is a drug, an antibiotic, an anti-inflammatory agent, a clotting factor, a hormone, a nucleic acid, a peptide, a cellular factor, or a ligand for a cell surface receptor.

24. (withdrawn) The method of claim 22, wherein the therapeutic agent is a drug or an antibiotic.

25. (withdrawn) The method of claim 22, wherein the therapeutic agent is a wound healing accelerator.

26. (withdrawn) A method of delivering a cell to a graft site comprising:

culturing the cell on a thermosensitive nanoporous polymer; and

placing the polymer comprising the cell onto the graft site.

27. (withdrawn) The method of claim 26, further comprising:

reducing the temperature of the thermosensitive nanoporous polymer to facilitate removal of the polymer; and

removing the polymer from the graft site.

28. (withdrawn) The method of claim 27, wherein the step of reducing the temperature is

performed after placing the thermosensitive nanoporous polymer carrying the cell onto the graft site.

29. (withdrawn) A thermosensitive nanoporous polymer when prepared by the process of claim 1.

30. (withdrawn) A thermosensitive nanoporous membrane when prepared by the process of claim 13.

31. (withdrawn) A thermosensitive polymer which is nanoporous.

32. (withdrawn) The thermosensitive nanoporous polymer of claim 31 having a decomposition temperature of at least about 300°C.

33. (withdrawn) The thermosensitive nanoporous polymer of claim 32 having a water vapour transmission rate of about 500 to about 2000 $g/m^2/day$.

34. (withdrawn) The thermosensitive nanoporous polymer of claim 33 having a tensile strength of about 4 to about 20 MPa.

35. (withdrawn) The thermosensitive polymer of claim 34 formed from a microemulsion comprising a first monomer capable of forming a thermosensitive polymer and a polymerizable surfactant.

36. (withdrawn) The thermosensitive nanoporous polymer of claim 35 wherein the first monomer is *N*-isopropylacrylamide.

37. (withdrawn) The thermosensitive nanoporous polymer of claim 36 wherein the polymerizable surfactant is ω-methoxy poly(ethylene oxide)$_{40}$ undecyl α-methacrylate or fluronic68-diacrylate.

38. (withdrawn) The thermosensitive nanoporous polymer of claim 37, wherein the microemulsion comprises *N*-isopropylacrylamide, methyl methacrylate, 2-hydroxyethyl

methacrylate, ω-methoxy poly(ethylene oxide)$_{40}$ undecyl α-methacrylate, water and ethylene glycol dimethacrylate in a ratio of approximately 20:10:10:35:23:2.

39. (withdrawn) The thermosensitive nanoporous polymer of claim 37, wherein the microemulsion comprises *N*-isopropylacrylamide, methyl methacrylate, 2-hydroxyethyl methacrylate, ω-methoxy poly(ethylene oxide)$_{40}$ undecyl α-methacrylate, water and ethylene glycol dimethacrylate in a ratio of approximately 10:10:20:35:23:2.

40. (withdrawn) The thermosensitive nanoporous polymer of claim 37, wherein the microemulsion comprises *N*-isopropylacrylamide, methyl methacrylate, 2-hydroxyethyl methacrylate, ω-methoxy poly(ethylene oxide)$_{40}$ undecyl α-methacrylate, water and ethylene glycol dimethacrylate in a ratio of approximately 7.5:7.5:15:35:33:2.

41. (withdrawn) The thermosensitive nanoporous polymer of claim 37, wherein the microemulsion comprises *N*-isopropylacrylamide, methyl methacrylate, 2-hydroxyethyl methacrylate, ω-methoxy poly(ethylene oxide)$_{40}$ undecyl α-methacrylate, water and ethylene glycol dimethacrylate in a ratio of approximately 10:20:10:35:23:2.

42. (withdrawn) The thermosensitive nanoporous polymer of claim 37, wherein the microemulsion comprises *N*-isopropylacrylamide, methyl methacrylate, 2-hydroxyethyl methacrylate, ω-methoxy poly(ethylene oxide)$_{40}$ undecyl α-methacrylate, water and ethylene glycol dimethacrylate in a ratio of approximately 25:10:5:35:23:2.

43. (withdrawn) The thermosensitive nanoporous polymer of claim 37, wherein the microemulsion comprises *N*-isopropylacrylamide, 2-hydroxyethyl methacrylate, ω-methoxy poly(ethylene oxide)$_{40}$ undecyl α-methacrylate, water and ethylene glycol dimethacrylate in a ratio of approximately 30:10:35:23:2.

44. (withdrawn) The thermosensitive nanoporous polymer of claim 37, wherein the microemulsion comprises *N*-isopropylacrylamide, methyl methacrylate, 2-hydroxyethyl methacrylate, ω-methoxy poly(ethylene oxide)$_{40}$ undecyl α-methacrylate, water and ethylene

glycol dimethacrylate in a ratio of approximately 10:25:5:35:23:2.

45. (withdrawn) The method of claim 28 wherein the graft site is a round window membrane of an ear, or a cornea, of a subject.